

**Auditor Qualification Form**  
**January 1, 2021 – December 31, 2021**

The Maryland Department of Housing and Community Development (DHCD) accepts comprehensive energy audits for DHCD financing and energy efficiency and conservation programs from qualified energy auditors. DHCD maintains a “Qualified Energy Auditor” list on an ongoing basis and requires annual submission to reaffirm qualification.

This qualification form must be executed by a responsible individual authorized to legally bind the entity to enter into agreements and signed by energy auditors.

- Current certifications for all auditors working on comprehensive energy audits for MEEHA projects must be submitted with this application. Minimum required certifications include: BPI Multifamily Analyst **AND** at least one of the following: BPI Envelope Professional, BPI Building Analyst, or similar non-BPI building science training including Certified Energy Manager (CEM).
- New applicants seeking consideration for inclusion on the [Qualified Auditors List](#) are required to submit copies of three (3) comprehensive multifamily energy audit reports for DHCD to review as examples of the applicant’s work. These reports will be used to determine the applicant’s qualifications in conjunction with other requested documentation (certifications etc.) and should demonstrate the extent of the applicant’s knowledge in building science and recommendations of energy efficiency measures.

**Energy Auditors Are Responsible For The Following Activities:**

1. Maintain required certifications throughout this period.
2. The performance, review, accuracy, and completeness of the final report issued for DHCD project funding consideration.
3. To perform comprehensive, unbiased whole building energy audits in full compliance with program guidance.<sup>1</sup>
4. Consider all feasible energy saving opportunities, regardless of an owner’s desired work scope.
5. Create and sign the final Energy Audit Report and include the responsible auditors’ contact information IE: phone number, e-mail, and credentials.
6. Complete a Funding Request Calculator. The Funding Request Calculator must be completed and submitted to Ownership as a stand-alone document.

**Comprehensive Energy Audit**

The auditor must:

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<sup>1</sup> Program Guidance consists of the current BPI [Multifamily Building Analyst Professional Standards](#) (and as amended), applicable [BPI Envelope Professional](#) and [Building Analyst standards](#), and the [Multifamily Energy Efficiency and Housing Affordability Program Guide](#).

- Obtain and use at least 12 months of actual utility consumption for the Owner (commercial) and Tenant (resident) for building energy modeling purposes. Obtain, direct, or assist the property management in obtaining signatures on DHCD’s [Customer Consent to Obtain Energy Use Information](#) form for all commercial meters and residents as is necessary per each utility. If this is not possible, an explanation must be stated in the audit report. DHCD may be able to assist with projects that use MEEHA funds.
- Identify, define and describe the building envelope (aligned thermal and pressure boundary) in the audit report. Develop a practical solution (scope of work) to repair pressure and thermal barrier deficiencies that will provide a continuous and aligned pressure and thermal barrier in all accessible spaces, including interstitial spaces (IE: chase ways, attics, porch overbuild areas, overhangs, and basement/crawl spaces). Individual unit compartmentalization must be a focus as well as utilizing current building science best practices (do no harm to occupants or building).
- Inspect a sample number of units: The auditor shall inspect a representative 10 percent sample of all dwelling units; or a minimum of 5 units, whichever is greater. The sample shall include, at a minimum, one representative dwelling unit from each unique type. In buildings where only one- or two-unit types exist, and testing shows little variation between similar units (no more than 20% difference), it is reasonable to reduce the sample size to no fewer than 10 units. In most cases, no more than 20 units should require inspection. However, if results are inconsistent, additional units must be sampled.
  - Variations in basic floor plan layout, HVAC type, capacity, quantity or fuel source located in each dwelling unit shall cause the dwelling unit to be considered a unique type.
- Visually inspect units, common areas, and interstitial spaces for air sealing and duct sealing opportunities.
- Identify and record efficiency ratings for lighting, appliances, HVAC units and all other items that may be an energy saving opportunity.

## Energy Audit Report

Audit reports must be revised as directed by DHCD to meet program requirements; including requirements identified in this document or other program guidance. Auditors must:

- Model buildings and units as appropriate; and develop a list of energy conservation measures using the current updated version of one of the following software programs for multifamily buildings: RemRate, eQuest, EAQUIP, or TREAT. Proprietary calculation sheets are not acceptable. Custom savings calculations for measures from proprietary calculation forms must be incorporated into the accepted energy model for identifying energy saving measures.
- Appropriately calibrate models to within +/- 10% of actual utility usage.
- Include a “Recommended Retrofit Package” report generated from the modeling software identifying an improvement package based on existing conditions, opportunity, practicality, and building science.
- The report(s) must show interactive measure savings.
- Include an ECM report/table showing **ALL** feasible ECM’s and their energy savings that were considered but not included in the Recommended Retrofit Package.
- Calculate heating savings for the period November 1- March 31 (begin October 1 in Garrett Co.) and cooling savings for the period June 1 – August 31.
- Separately identify ECM’s, cost, savings, etc. for owner (commercial utility account) and tenant (residential utility account) in the Funding Request Calculator.

- Upon request, provide project electronic energy model file, input reports, output reports, and all other information required by DHCD to verify data integrity. This information becomes DHCD property and is subject to third party and public review in accordance with Maryland's Public Information Act.
  - Clearly identify and describe assumptions used to develop the energy model and ECM calculations including quantities, efficiencies, operation and run times (hours in use), and resources used to justify the assumptions. (Example: attic fiberglass batt insulation measured R-30, downgraded to R-28 using the BPI Batt insulation effectiveness chart based on installation quality.)
  - Include matrices identifying all mechanical equipment, lighting, etc. quantities, sizes, model numbers, and efficiencies of those items inspected.
  - Include photos of equipment inspected for a single unit that is a representation for all units inspected. Photos must be labeled to identify the date they were taken.
  - Provide building ventilation recommendations that align with current building ventilation standards and take into account the recommended scope of work.
  - Submit a [Funding Request Calculator](#) with all audit reports. The Auditor must clearly identify the efficiency, size, quantities, age, hours of use, etc. of existing conditions. Example: existing double hung vinyl windows with SHGC 0.40 and U-factor 0.38.
- ❖ The audit report and ECM Data Sheet are reviewed by DHCD. Follow up questions are formulated and sent to the auditor and project Applicant. The auditor must provide specific and detailed responses to questions within 10 business days of DHCD issuing questions. Inadequate or delayed responses may result in the auditor being removed from the Qualified Auditors List.

### Energy Conservation Measures (ECM)

All ECM's must be listed on a 2021 Funding Request Calculator. The 2021 Funding Request Calculator is formatted and formulated with locked fields to provide DHCD with the data required to determine program funding. Columns in the data entry fields with tinted backgrounds must be filled out and fields with a blank background will populate automatically.

- Funding Request Calculator:
  - ECM's must be separated according to their respective utility meter (tenant and common/commercial) for all projects.
  - Each ECM must be identified on a separate row.
  - Use DHCD's Expected Useful Life Table, for ECM lives. Lighting measure "useful life" must be determined by the type and hours of use per day as provided on the Expected Useful Life Table.
  - Measure Costs must be identified for each ECM utilizing actual contractor bids prepared by the owners' selected contractor(s) and must include cost of materials, equipment, and installation.
  - Location of each lighting ECM must be stated (Example: Kitchen Ceiling, Bathroom Vanity, Entry/Foyer, etc.).
  - ECM's must be listed as separate ECM's if one of the following is different: Measure Category, Recommended ECM Specification or Expected Useful Life.
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- Occupancy or photo sensor savings must be calculated using the recommended efficient condition of the lighting bulb/fixture when both the light and a sensor are being recommended.
  - When applicable, calculate Incremental Savings by calculating the increased savings resulting from the increased cost of the higher efficiency unit over the base level product. (Only in new construction projects)
  - HVAC system sizing **is a function of the energy audit and MUST** be based on demand/load calculations using Manuals “J” and “S” or appropriate ASHRAE calculations based on the improved building condition. Demand/load calculations must be submitted to DHCD upon request.
  - Audit reports must contain a detailed ECM scope of work specific to each proposed ECM for the project. The scope of work must be detailed enough for appropriate lay persons to properly perform the identified work to achieve the auditors intended results. Project design teams must be able to incorporate the scope of work into project specifications to achieve the expected results.
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- ❖ When in conflict with BPI, the Multifamily Energy Efficiency and Housing Affordability Program Guide takes precedence but does not take precedence over state and/or local code.
  - ❖ Entities that require excessive revisions to energy audit reports to meet program guidance may be removed from the Qualified Auditor list at DHCD’s sole discretion.

By signing this form, I hereby acknowledge that I have read this application form and agree to perform and deliver compliant energy audits and audit reports as outlined here and detailed in BPI and DHCD guidance. I represent and warrant all personnel that will perform audit activities for DHCD finance programs are aware of the requirements of this application.

I understand I will contract with the property owners and be paid by them for this service. DHCD is not contracting these services.

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Entity/Individual name

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Phone number

\_\_\_\_\_

E-mail Address

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Printed name

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Title

As an energy auditor seeking DHCD qualified status, I have read these requirements and agree to perform and be responsible for the final energy audit product produced under DHCD's guidelines. I have read and agree to perform said energy audits in accordance with all of DHCD's guidelines including those outlined in this document.

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Auditor Print Name

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Auditor Print Name

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